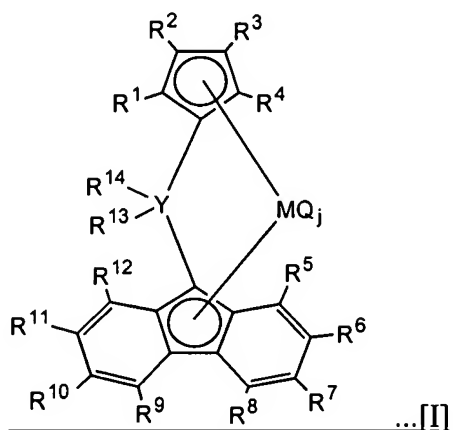


**AMENDMENTS TO THE CLAIMS****1. (Cancelled)**

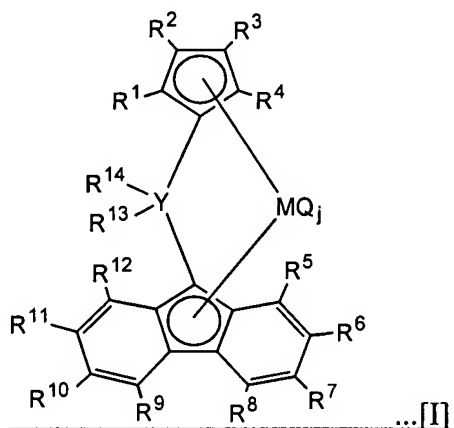
**2. (Currently Amended)** ~~The bridged metallocene compound of the formula [I] as claimed in claim 1, wherein  $R^{13}$  and  $R^{14}$  are unsubstituted or substituted aryl groups, at least one of which is a substituted aryl group, and M is Ti or Zr. A bridged metallocene compound represented by the formula [I]:~~



wherein Y is a carbon, silicon, germanium or tin atom; M is Ti or Zr;  $R^1$  to  $R^{12}$ , which may be the same or different, are each hydrogen, a hydrocarbon group or a silicon-containing group; neighboring substituents of  $R^5$  to  $R^{12}$  may be linked with each other to form a ring;  $R^{13}$  and  $R^{14}$  are unsubstituted or substituted aryl groups, at least one of which is a substituted aryl group; Q is a halogen, a hydrocarbon group, an anionic ligand or a neutral ligand capable of coordination by a lone pair of electrons, and may be the same or different when plural; and j is an integer from 1 to 4.

3. (Original) The bridged metallocene compound of the formula [I] as claimed in claim 2, wherein  $R^{13}$  or  $R^{14}$  is a substituted aryl group which has one or more substituents of the same or different kind selected from hydrocarbon groups of 1 to 20 carbon atoms, halogen-containing hydrocarbon groups, halogen atoms, oxygen-containing groups and nitrogen-containing groups.

4. (Currently Amended) ~~The bridged metallocene compound of the formula [I] as claimed in claim 1, wherein either or both of  $R^{13}$  and  $R^{14}$  is represented by  $R^{15}R^{16}CH$ , in which  $R^{15}$  and  $R^{16}$  are each hydrogen, a hydrocarbon group or a silicon-containing group~~ A bridged metallocene compound represented by the formula [I]:

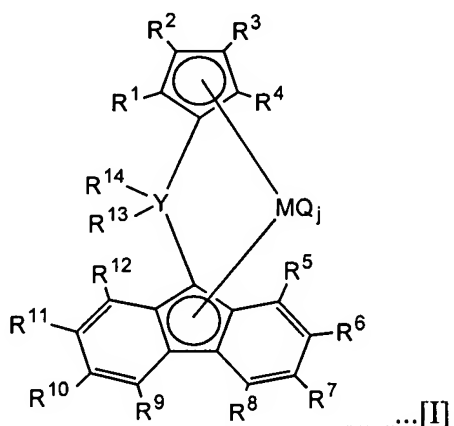


wherein Y is a carbon, silicon, germanium or tin atom; M is Ti, Zr or Hf;  $R^1$  to  $R^{12}$ , which may be the same or different, are each hydrogen, a hydrocarbon group or a silicon-containing group; neighboring substituents of  $R^5$  to  $R^{12}$  may be linked with each other to form a ring; either or both of  $R^{13}$  and  $R^{14}$  is represented by  $R^{15}R^{16}CH$ , in which  $R^{15}$  and  $R^{16}$  are each hydrogen, a hydrocarbon group or a silicon-containing group; and when one of  $R^{13}$  and  $R^{14}$  is not as defined above, then  $R^{13}$  or  $R^{14}$  is a hydrocarbon group or a silicon-containing group and may be linked with each other to form a ring (when  $R^5$  to  $R^{12}$  are all hydrogen or when  $R^6$  and  $R^{11}$  are both

hydrocarbon groups,  $R^{13}$  and  $R^{14}$  are hydrocarbon groups other than phenyl, methyl and polymethylene groups, and when  $R^7$  and  $R^{10}$  are both hydrocarbon groups,  $R^{13}$  and  $R^{14}$  are hydrocarbon groups other than phenyl and methyl groups); Q is a halogen, a hydrocarbon group, an anionic ligand or a neutral ligand capable of coordination by a lone pair of electrons, and may be the same or different when plural; and j is an integer from 1 to 4.

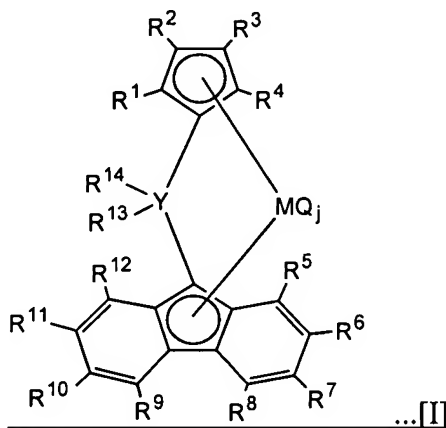
5. (Original) The bridged metallocene compound of the formula [I] as claimed in claim 4, wherein either or both of  $R^{13}$  and  $R^{14}$  is represented by  $R^{15}R^{16}CH-$ , in which  $R^{15}$  and  $R^{16}$  are linked with each other to form a ring.

6. (Currently Amended) ~~The bridged metallocene compound of the formula [I] as claimed in claim 1, wherein Y is a carbon atom;  $R^{13}$  and  $R^{14}$  are linked with each other to form a pentamethylene group represented by  $CH_2(CH_2)_n$ , in which n is an integer from 1 to 10; and  $R^7$  and  $R^{10}$  are hydrocarbon groups of 1 to 20 carbon atoms~~ A bridged metallocene compound represented by the formula [I]:



wherein Y is a carbon atom; M is Ti, Zr or Hf; R<sup>1</sup> to R<sup>12</sup>, which may be the same or different, are each hydrogen, a hydrocarbon group or a silicon-containing group; neighboring substituents of R<sup>5</sup> to R<sup>12</sup> may be linked with each other to form a ring; R<sup>13</sup> and R<sup>14</sup> are linked with each other to form a polymethylene group represented by -CH<sub>2</sub>(CH<sub>2</sub>)<sub>n</sub>-, in which n is an integer from 1 to 10; and R<sup>7</sup> and R<sup>10</sup> are hydrocarbon groups of 1 to 20 carbon atoms; Q is a halogen, a hydrocarbon group, an anionic ligand or a neutral ligand capable of coordination by a lone pair of electrons, and may be the same or different when plural; and j is an integer from 1 to 4.

7. (Currently Amended) ~~The bridged metallocene compound of the formula [I] as claimed in claim 1, wherein arbitrary three or more substituents of R<sup>5</sup> to R<sup>12</sup> are hydrocarbon groups of 1 to 20 carbon atoms or silicon-containing groups~~ A bridged metallocene compound represented by the formula [I]:



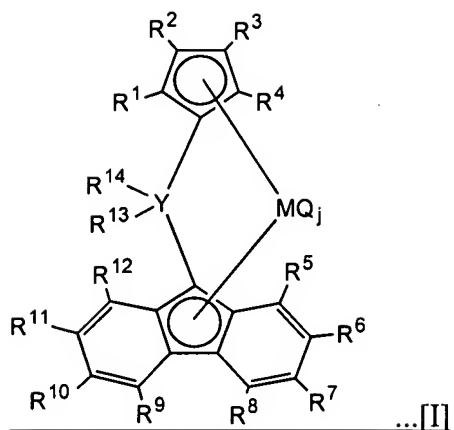
wherein Y is a carbon, silicon, germanium or tin atom; M is Ti, Zr or Hf; R<sup>1</sup> to R<sup>12</sup>, which may be the same or different, are each hydrogen, a hydrocarbon group or a silicon-containing group, wherein arbitrary three or more substituents of R<sup>5</sup> to R<sup>12</sup> are hydrocarbon groups of 1 to 20 carbon atoms or silicon-containing groups; R<sup>13</sup> and R<sup>14</sup>, which may be the same or different, are

each a hydrocarbon group or a silicon- containing group and may be linked with each other to form a ring (when R<sup>6</sup> and R<sup>11</sup> are both hydrocarbon groups, R<sup>13</sup> and R<sup>14</sup> are hydrocarbon groups other than phenyl, methyl and polymethylene groups and when R<sup>7</sup> and R<sup>10</sup> are both hydrocarbon groups, R<sup>13</sup> and R<sup>14</sup> are hydrocarbon groups other than phenyl and methyl groups); Q is a halogen, a hydrocarbon group, an anionic ligand or a neutral ligand capable of coordination by a lone pair of electrons, and may be the same or different when plural; and j is an integer from 1 to 4.

8. (Original) The bridged metallocene compound of the formula [I] as claimed in claim 7, wherein R<sup>6</sup>, R<sup>7</sup>, R<sup>10</sup> and R<sup>11</sup> are hydrocarbon groups of 1 to 20 carbon atoms or silicon-containing groups.

9. (Original) The bridged metallocene compound of the formula [I] as claimed in claim 7, wherein R<sup>6</sup> and R<sup>7</sup>, and R<sup>10</sup> and R<sup>11</sup> are linked with each other to form rings.

10. (Currently Amended) ~~The bridged metallocene compound of the formula [I] as claimed in claim 1, wherein R<sup>5</sup> to R<sup>12</sup> are not hydrogen at the same time; R<sup>6</sup> and R<sup>11</sup> are not t-butyl groups when R<sup>13</sup> and R<sup>14</sup> are methyl or phenyl groups; and Y is a silicon, germanium or tin atom~~ A bridged metallocene compound represented by the formula [I]:



wherein Y is a silicon, germanium or tin atom; M is Ti, Zr or Hf;  $R^1$  to  $R^{12}$ , which may be the same or different, are each hydrogen, a hydrocarbon group or a silicon-containing group, wherein  $R^5$  to  $R^{12}$  are not hydrogen at the same time; neighboring substituents of  $R^5$  to  $R^{12}$  may be linked with each other to form a ring;  $R^{13}$  and  $R^{14}$ , which may be the same or different, are each a hydrocarbon group or a silicon-containing group and may be linked with each other to form a ring (when  $R^6$  and  $R^{11}$  are both hydrocarbon groups,  $R^{13}$  and  $R^{14}$  are hydrocarbon groups other than phenyl, methyl and polymethylene groups; when  $R^7$  and  $R^{10}$  are both hydrocarbon groups,  $R^{13}$  and  $R^{14}$  are hydrocarbon groups other than phenyl and methyl groups; and where  $R^6$  and  $R^{11}$  are not t-butyl groups when  $R^{13}$  and  $R^{14}$  are methyl or phenyl groups); Q is a halogen, a hydrocarbon group, an anionic ligand or a neutral ligand capable of coordination by a lone pair of electrons, and may be the same or different when plural; and j is an integer from 1 to 4.

11. (Original) The bridged metallocene compound of the formula [I] as claimed in claim 10, wherein Y is a silicon or germanium atom.

12. **(Currently Amended)** The bridged metallocene compound of the formula [I] as claimed in ~~claim 1~~ claim 2, wherein R<sup>1</sup> to R<sup>4</sup> are all hydrogen.

13. **(Currently Amended)** An olefin polymerization catalyst comprising the bridged metallocene compound of ~~claim 1~~ claim 2.

14. **(Currently Amended)** An olefin polymerization catalyst comprising:

(A) the bridged metallocene compound of ~~claim 1~~ claim 2 and

(B) at least one compound selected from:

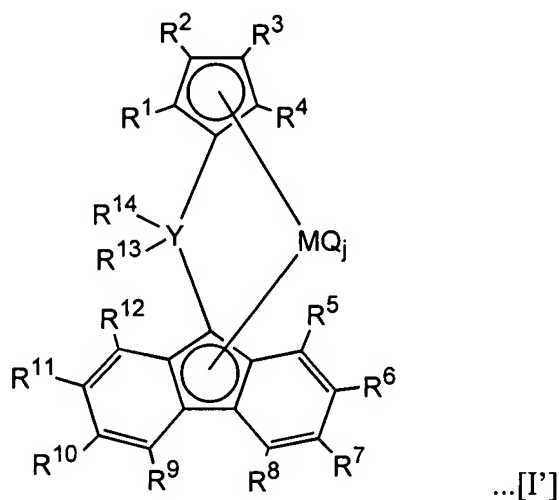
(B-1) an organometallic compound,

(B-2) an organoaluminum oxy-compound and

(B-3) a compound which reacts with the metallocene compound (A) to form an ion pair.

15. (Original) A method for olefin polymerization, in which one or more monomers, essentially ethylene, selected from ethylene and  $\alpha$ -olefins are polymerized in the presence of the olefin polymerization catalyst of claim 14 so that an ethylene based polymer with an ethylene content of more than 50 mol% is obtained.

16. (Original) A method for olefin polymerization, in which one or more monomers, essentially ethylene, selected from ethylene and  $\alpha$ -olefins are polymerized in the presence of an olefin polymerization catalyst which comprises a bridged metallocene compound of the formula [I'] so that an ethylene based polymer with an ethylene content of more than 50 mol% is obtained:



wherein Y is a carbon, silicon, germanium or tin atom; M is Ti, Zr or Hf;  $R^1$  to  $R^{12}$ , which may be the same or different, are each hydrogen, a hydrocarbon group or a silicon-containing group;  $R^5$  to  $R^{12}$  are not hydrogen at the same time; neighboring substituents of  $R^5$  to  $R^{12}$  may be linked with each other to form a ring;  $R^{13}$  and  $R^{14}$ , which may be the same or different, are each a hydrocarbon group or a silicon-containing group and may be linked with each other to form a ring; Q is a halogen, a hydrocarbon group, an anionic ligand or a neutral ligand capable of coordination by a lone pair of electrons, and may be the same or different when plural; and j is an integer from 1 to 4.



17. (Previously Presented) The method for olefin polymerization as claimed in claim 15, wherein the metallocene compound of the formula [I] or [I'] has been supported on a carrier.